

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

William J. KOHR

Serial No.: TBD

Filed: Concurrently Herewith

For: METHOD FOR RECOVERING
METAL VALUES FROM
CONCENTRATES OF SULFIDE
MINERALS

) Group Art Unit: 1742
)
) Examiner: Not Yet Assigned
)
)
) Customer Number: 34026
)
)
)
)
)

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant(s) hereby disclose to the Patent Office patents, publications or other information of which they are aware, that they believe may be material to the patentability of one or more of the pending claims in this application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56.

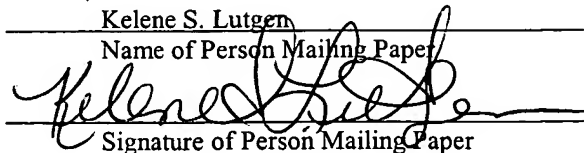
CERTIFICATE OF MAILING
(37 C.F.R. §1.10)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as 'Express Mail Post Office To Addressee' in an envelope addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

EV 301124795 US
Express Mail Label No.

November 24, 2003
Date of Deposit
LAI-2075378v1

Kelene S. Lutgen
Name of Person Mailing Paper


Signature of Person Mailing Paper

The items identified in this Information Disclosure Statement may or may not be "material" pursuant to 37 CFR 1.56 and the submission thereof by Applicant(s) shall not be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR 1.97(h)), or even qualifies as "prior art" under 35 USC 102 with respect to this invention unless specifically designated by Applicant(s) as such.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information, as defined in 37 CFR 1.56, exists.

Attached is PTO Form 1449 listing the patents, publications and other information that may be material to the patentability of one or more claims of the subject application and copies of all such items are enclosed herewith. Applicant respectfully requests that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

The patents, publication and other information disclosed in the attached PTO Form 1449 were previously cited by or submitted to the Office in one of the following applications which this application relies for an earlier filing date under 35 U.S.C. § 120: Application Serial No. 10/146,393 filed on May 14, 2002, which is a continuation of 09/709,765, filed November 10, 2000, which is a continuation of Ser. No. 08/950,279, filed October 14, 1997, which is a continuation of 08/476,444, filed on June 7, 1995, which is a continuation in part of Ser. No. 08/343,888, filed November 16, 1994, which is a continuation in part of Ser. No. 08/161,742, filed on December 3, 1993. Accordingly, pursuant to 37 CFR 1.98(d), copies of the previously

cited or submitted patents, publications, and other information listed in the attached PTO Form 1449 are not attached except as noted below.

Applicant is enclosing copies of cited references CF, CG, CH, and DH. References CF, CG, and CH were cited in a Search Report (Ref. DH) issued by the Chilean Patent Office in an application corresponding to the present application. Applicant notes that cited references CF, CG, CH, and DH are all in Spanish. English translations have been provided for the Examiner's Search Report and Chilean Patent 36008. With respect to Chilean Patents 38320 and 36009 cited by the Examiner in the search report, Applicant notes that it does not have an English translation of those patents. However, the Chilean Examiner cited those patents as corresponding to class "A" or as describing the state of the technology.

With respect to the English translations provided for the Examiner's Search Report and Chilean Patent No. 36008, Applicant notes that there appears to be a number of translation errors in these documents. In particular, it appears that the translator used the English word "clays" for the Spanish word "gruesos" in many locations in the translations. Applicant understands that "gruesos" actually means "coarse" or "thick" in English. Accordingly, Applicant has attempted to substitute the word "coarse" for "clays" throughout the translations wherever "gruesos" was used in the original text.

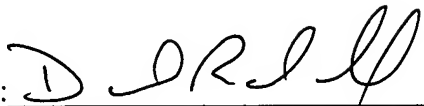
Applicant believes that no fee should be required for consideration of this Information Disclosure Statement. Should Applicant be in error, however, please charge any fee required for

the consideration of this paper to counsel's Deposit Account No. 50-2468.

Respectfully submitted,

JONES DAY

Dated: November 24, 2003

By: 
David A. Randall
Reg. No. 37,217

555 West Fifth Street
Suite 4600
Los Angeles, California 90013-1025
(213) 489-3939

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

U.S. PATENT DOCUMENTS													
Exam. Init.		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLA SS	FILING DATE
	AA		5	8	8	4	7	6	08/17/1897	Rhodes, H.A.			02/01/1897
	AB	3	6	4	7	2	6	1	03/07/72	Stenger et al.	299	4	05/04/70
	AC	3	7	7	7	0	0	4	12/04/1973	Lankenau, A., et al.	423	20	05/10/71
	AD	3	8	1	9	7	9	7	06/25/1974	Spedden, H.R., et al.	423	27	10/14/71
	AE	3	9	4	9	0	5	1	04/06/1976 ¹	Pawlek, F.	423	28	01/07/74
	AF	4	0	1	7	3	0	9	04/12/1977	Johnson, P.H.	75	101	03/28/75
	AG	4	0	5	6	2	6	1	11/01/1977	Darrah, R.M.	266	101	02/17/76
	AH	4	1	7	3	5	1	9	11/06/79	Parker et al.	204	110	11/07/78
	AI	4	2	5	6	7	0	5	03/17/1981	Heinen, H.J., et al.	423	27	04/17/80
	AJ	4	2	5	6	7	0	6	03/17/1981	Heinen, H., et al.	423	29	04/17/80
	AK	4	2	7	9	8	6	8	07/21/1981	Von Kohorn, H.	423	29	03/24/80

LAI-207538.1

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED: Page <u>1</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	AL	4	3	0	1	1	2	1	11/17/1981	Von Kohorn, H.	423	1	11/10/80
	AM	4	3	1	8	8	9	2	03/09/1982	Von Kohorn, H.	423	279	11/10/80
	AN	4	3	2	4	7	6	4	04/13/1982	Hasegawa, S., et al.	422	159	07/23/80
	AO	4	3	4	3	7	7	3	08/10/1982	Miller, J.D., et al.	423	1	01/29/81
	AP	4	3	7	4	0	9	7	02/15/1983	Holland, L.	423	22	04/16/81
	AQ	4	4	0	2	8	3	1	09/06/1983	Beardsmore, A., et al.	210	606	03/10/82
	AR	4	4	2	4	1	9	4	01/03/1984	Hughes, R.M.	423	1	01/04/82
	AS	4	5	2	6	6	1	5	07/02/1985	Johnson, P.H.	75	101	01/29/85
	AT	4	5	5	7	9	0	5	12/10/1985	Sherman, M.I., et al.	423	27	09/13/84
	AU	4	5	7	1	3	8	7	02/18/1986	Bruynesteyn, A., et al.	435	262	03/03/83
	AV	4	5	8	5	5	4	8	04/29/1986	Cadzow, M.D.	209	5	04/26/84 PCT
	AW	4	6	9	0	8	9	4	09/01/1987	Brierley, J.A., et al.	435	244	11/20/85

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED: Page <u>2</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	AX	4	7	2	1	5	2	6	01/26/1988	Elmore, C., et al.	75	118	08/13/86
	AY	4	7	2	9	7	8	8	03/08/1988	Hutchins, S.R., et al.	75	118	01/23/87
	AZ	4	7	4	0	2	4	3	04/26/1988	Krebs-Yuill, B.A., et al.	75	101	04/30/86
	BA	4	7	5	2	3	3	2	06/21/1988	Wu, R., et al.	75	101	04/30/86
	BB	4	7	5	8	4	1	7	07/19/88	van Lookeren- Campagne et al.	423	231	10/23/86
	BC	4	7	7	8	5	1	9	10/18/1988	Pesic, B.	75	118	04/07/87
	BD	4	7	8	9	4	8	1	12/06/1988	Brierley, M.A., et al.	210	661	04/19/87
	BE	4	9	8	7	0	8	1	01/22/91	Hackl et al.	435	262	03/23/88
	BF	5	0	6	2	9	5	6	11/05/91	Lupton et al.	210	611	03/20/90
	BG	5	1	2	7	9	4	2	07/07/1992	Brierley, J.A., et al.	75	743	08/20/91
	BH	5	1	6	2	1	0	5	11/10/1992	Kleid, D.G., et al.	423	29	
	BI	5	1	9	6	0	5	2	03/23/1993	Gross, A., et al.	75	712	06/19/92

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED:
Page <u>3</u> of <u>8</u>	
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	BJ	5	2	3	2	6	7	6	08/03/1993	Wolff, F., et al.	423	210	09/04/92
	BK	5	2	3	6	6	7	7	08/17/1993	Torres-Cardona, M., et al.	423	230	03/3/92
	BL	5	2	4	4	4	9	3	09/14/1993	Brierley, J.,	75	743	07/02/92
	BM	5	2	4	6	4	8	6	09/21/93	Brierly, J. et al	75	743	10/18/92
	BN	5	3	3	2	5	5	9	07/26/1994	Brierley, J., et al.	423	Dig 17	06/13/92
	BO	5	4	3	1	7	1	7	07/11/1995	Kohr	75	744	12/03/93
	BP	5	5	7	3	5	7	5	11/12/96	Kohr	75	712	11/16/94
	BQ	5	6	7	6	7	3	3	10/14/97	Kohr	75	712	06/07/95
	BR	5	3	5	6	4	5	7	10/18/94	Alvarez et al.	75	710	12/14/92
	BS	5	5	2	7	3	8	2	06/18/96	Alvarez et al.	75	712	10/14/94
	BT	5	7	6	3	2	5	9	06/09/98	Panos.	435	262	08/09/93
	BU	5	6	1	1	8	3	9	03/18/97	Kohr	75	712	05/30/95
	BV	5	8	0	0	5	9	3	09/01/98	Kohr	75	712	03/18/97
	BW	6	1	4	6	4	4	4	11/14/2000	Kohr	75	712	10/14/1997

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED:	Page <u>4</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.		

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	BX	6	3	8	7	1	5	5		Kohr	75	712	11/10/2000
--	----	---	---	---	---	---	---	---	--	------	----	-----	------------

FOREIGN PATENT DOCUMENT								
Exam. Init.		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
	BY	1234290	03/22/88	Canada				
	BZ	1234291	03/22/88	Canada				
	CA	1234991	04/12/88	Canada				
	CB	1235907	05/03/88	Canada				
	CC	0305131	03/01/89	EPO				
	CD	2180929	04/08/1987	Great Britain	C22B	11/04	X	
	CE	0522978 A1	10/07/1992	EPO	C22B			
	CF	36008	11/20/87	Chile			X	
	CG	36009	01/29/88	Chile				X
	CH	38320	04/26/90	Chile				X
	CI	2,073,589	01/11/93	Canada	CB22- 003/18			
	CJ	2,120,024	04/01/93	Canada	C22B- 021/06			

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED:	Page <u>5</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.		

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
CK	"A Powerful Technology For Gold Mining in Peru Biooxidation of Gold Concentrates in Arsenopyrite" <u>Teoria y Accion del Mundo Minero</u> , June. 1991 (English Translation)	
CL	"Treatment of Refractory Ores: Progressing Technology . . . Progress in the Treatment of Gold Ore" <u>Teoria y Accion del Mundo Minero</u> , Apr. 1992 (English Translation)	
CM	"Up-To-Date Metallurgy (Progressing Technologies) Bioleaching of Refractory Gold Sulphides and Applications in Peruvian Mines" <u>Teoria y Accion del Mundo Minero</u> , Jun. 1993 (English Translation)	
CN	Torma, A., <u>Mineral Bioprocessing</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 1.1-1.10	
CO	Henley, K.J., et al., <u>The Mineralogy of Refractory Gold Ores</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 5.1-5.13	
CP	Ritchie, A.I.M., et al., <u>Optimisation of Oxidation Rates in Dump Oxidation of Pyrite-Gold Ores</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 9.1-9.8	
CQ	Kelley, B.C., et al., <u>Bioremediation - Applications to Waste Processing in the Mining Industry</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 10.1-10.10	
CR	Fraser, G.M., <u>Mixing and Oxygen Transfer in Mineral Bioleaching</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 16.1-16.11	
CS	Nicholson, H., et al., <u>Selection of a Refractory Gold Treatment Process for the Sansu Project</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 20.1-20.11	
CT	Untung, S.R., et al., <u>Application of Bio-Leaching to Some Indonesian Sulphide Ores (A Preliminary Study)</u> , Biomine '93 Conference, March 22-23, 1993, Adelaide, Australia, pp. 11.1-11.10	

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED: Page <u>6</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	CU	Fraser, K.S., et al., <u>Processing of Refractory Gold Ores</u> , Minerals Engineering, Vol. 4, Nos. 7-11, pp. 1029-1041, 1991
	CV	Brierley, C.L., <u>Mineral Bio-Processing: Opportunities in Extractive Metallurgy and Environmental Control</u> , NIST, 11/93, pp. 1-29
	CW	Merson, J., <u>Mining With Microbes</u> , New Scientist, 4, January 1991, pp. 17-19
	CX	Browner, R.E., et al., <u>Studies on the Heap Leaching Characteristics of Western Australian Gold Ores</u> , World Gold (1991)
	CY	Mihaylov, B., et al., <u>Gold Recovery From A Low-Grade Ore Employing Biological Pretreatment in Columns</u> , Biohydrometallurgical Technologies, The Minerals, Metals & Materials Society, 1993, pp. 499-511
	CZ	Brierley, J.A., et al., <u>Biooxidation-Heap Concept For Pretreatment Of Refractory Gold Ore</u> , Biohydrometallurgical Technologies, The Minerals, Metals & Materials Society, 1993, pp. 437-448
	DA	Harrington, J.G., et al., <u>Engineering Aspects Of Heap Biooxidation Of Coarse-Crushed Refractory Gold Ores</u> , Biohydrometallurgical Technologies, The Minerals, Metals & Materials Society, 1993, pp. 521-530
	DB	Ahonen, L., et al., <u>Redox Potential-Controlled Bacterial Leaching Of Chalcophyrite Ores</u> , Biohydrometallurgical Technologies, The Minerals, Metals & Materials Society, 1993, pp. 571-578
	DC	Pantelis, G., et al., <u>Optimising Oxidation Rates In Heaps Of Pyritic Material</u> , Biohydrometallurgical Technologies, The Minerals, Metals & Materials Society, 1993, pp. 731-738
	DD	Mihaylov, B., et al., <u>Biooxidation Of A Sulfide Gold Ore In Columns</u> , Mineral Bioprocessing, The Minerals, Metals & Materials Society, 1993, pp. 163-177

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED:	Page <u>7</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.		

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 330440-100038	SERIAL NO. TBD
	APPLICANT: William J. KOHR	
	FILING DATE: Filed herewith	GROUP: 1742

	DE	Lizama, H.M., et al., <u>Bacterial Leaching Of Copper And Zinc From A Sulfide Ore By A Mixed Culture Of Thiobacillus Ferrooxidans And Thibobacillus Thiooxidans In Laboratory Scale And Pilot Plant Scale Columns</u> , Biohydrometallurgy, 1989, pp. 519-531
	DF	Miller et al., "Bacterial Heap Leaching of Low-Grade Nickel Material, <u>Council for Mineral Technology</u> , Randburg, South Africa (1985), pp. 341-352
	DG	Southwood et al., "Parameters Affecting the Bacterial Heap Leaching of Low-Grade Nicheliferous Material, <u>Editions GEDIM</u> , St. Etienne, France (1985), pp. 400-412
	DH	Examiner's Search Report No. 1 for Chilean Patent Application No. 1810-94 issued 12/23/98 (and translation thereof)

EXAMINER: Information Disclosure Statement -- Section 9 PTO-1449	DATE CONSIDERED:	Page <u>8</u> of <u>8</u>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.		